

Claims:

1. A light source comprising:

(a) a light generator;

5 (b) a sensor for sensing operational parameters of the light generator;

(c) a light source data storage device permanently integrated with the light generator and operatively coupled to the sensor, for storing operational parameters data correlated to the operational parameters of the light generator; and

10 (d) a light source connector adapted to operatively couple the light source to a light emitting device.

2. The light source of claim 1 further comprising a light source housing, wherein the light generator, the sensor and the light source data storage device are all mounted to the light source housing.

3. The light source of claim 1, wherein the operational parameters comprise at least one type of data selected from the group of data correlated to: run-time and light generator temperature.

4. The light source of claim 1, wherein the operational parameters data comprise data correlated to whether or not a preselected maximum

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operating temperature of the light generator has been exceeded during operation.

5. The light source of claim 1, wherein the light generator is selected from the following group of light generators: a light emitting semiconductor, an LED, an array of LEDs, an incandescent bulb, a halogen bulb, a fluorescent bulb, and an arc lamp.

6. A light source comprising:

(a) a light generator, wherein the light generator comprises a housing;

(b) a light source connector adapted to releasably operatively couple the light source to a light emitting device, the light emitting device comprising a controller for generating operational parameters data correlated to operational parameters of the light source; and

(c) a light source data storage device permanently mounted to the housing; wherein the data storage device is adapted to receive and store operational parameters data from the controller when the light source is operatively coupled to the light emitting device.

7. The light source of claim 6 further comprising a sensor for sensing operational parameters of the light generator, wherein the sensor is operatively coupled to the controller.
8. The light source of claim 6, wherein the operational parameters
5 comprise at least one type of data selected from the group of data correlated to: run-time and light generator temperature.
9. The light source of claim 6, wherein the operational parameters data
10 comprise data correlated to whether or not a preselected maximum operating temperature of the light generator has been exceeded during operation.
10. The light source of claim 6, wherein the light generator is selected from the following group of light generators: a light emitting semiconductor, an LED, an array of LEDs, an incandescent bulb, a halogen bulb, a fluorescent bulb, and an arc lamp.
- 15 11. A light source reader in combination with the light source of claim 1, the light source reader comprising:
 - (a) a reader housing;
 - (b) a controller for selectively retrieving the operational parameters data from the light source data storage device;
 - 20 (c) a reader connector for releasably operationally coupling the controller to the light source data storage device; and

(d) a power source mounted to the reader housing and operatively coupled to the controller.

12. The light source reader of claim 11, further comprising a display operatively coupled to the controller for selectively displaying image data correlated to selected operational data.

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13. The light source reader of claim 11, further comprising a control data interface.

14. A light emitting device in combination with a light source, the light source comprising:

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(a) a light generator;

(b) a sensor for sensing operational parameters of the light generator;

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(c) a light source data storage device integrated with the light generator and operatively coupled to the sensor, for storing operational parameters data correlated to the operational parameters of the light generator; and

(d) a light source connector adapted to operatively couple the light source to a light emitting device;

wherein the light emitting device comprises:

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(e) a device housing;

- (f) a socket adapted to releasably engage the light source connector, wherein the socket is mounted to the device housing;
- (g) a controller for retrieving the operational parameters data from the light source data storage device; wherein the controller is operatively coupled to the socket; and
- 5 (h) a power source mounted to the device housing and operatively coupled to the controller and to the socket.
15. The light source of claim 14, wherein the operational parameters comprise at least one type of data selected from the group of data correlated to: run-time and light generator temperature.
- 10 16. The light source of claim 14, wherein the operational parameters data comprise data correlated to whether or not a preselected maximum operating temperature of the light generator has been exceeded during operation.
- 15 17. The light source of claim 14, wherein the light generator is selected from the following group of light generators: a light emitting semiconductor, an LED, an array of LEDs, an incandescent bulb, a halogen bulb, a fluorescent bulb, and an arc lamp.
18. A light source comprising:
- 20 (a) a light generator; and

- (b) a non-volatile light source data storage device integrated with the light generator, for storing operational parameters data correlated to the operational parameters of the light generator.

19. The light source as claimed in claim 18, wherein said light source data
5 storage device stores operational parameters data associated only with said light generator.

20. The light source as claimed in claim 18, further comprising a light
source connector adapted to releasably operatively couple the light
source to a light emitting device.

10 21. The light source as claimed in claim 18, wherein said light source data
storage device is mounted to the light generator.

22. The light source as claimed in claim 18, wherein said light source data
storage device is inseparably integrated with the light generator.

15 23. The light source as claimed in claim 18, wherein said light source data
storage device is permanently affixed to the light generator.